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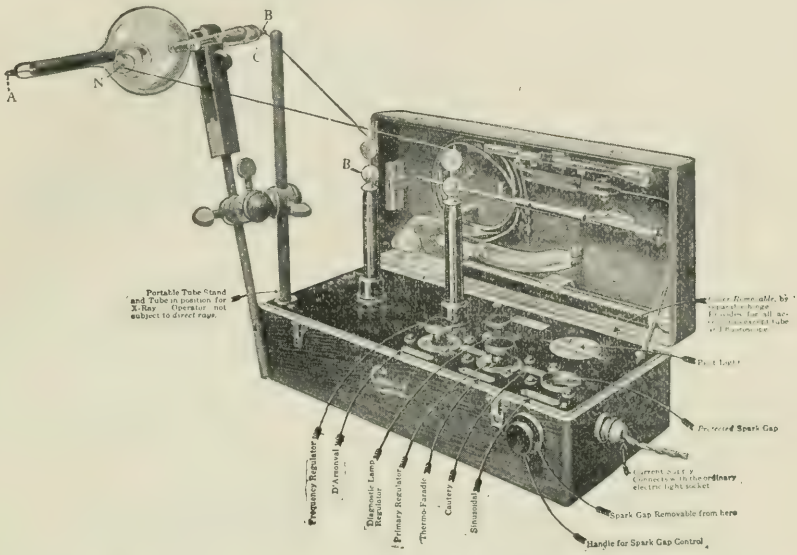

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NASHVILLE JOURNAL
—OF—
MEDICINE AND SURGERY

CHARLES S. BRIGGS, A. M., M. D., Editor

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Original Communications

NERVOUS DISORDERS AND THE NEUROLOGIST IN RELATION TO THE PROFESSION AND THE PUBLIC.

BY TOM A. WILLIAMS, MB., C.M., EDIN.
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It is unfortunate that the name of neurologist has been assumed so generally by charlatans without pretensions to even the elements of medical science and skill. Of course, we medical men know the difference; but the laity may be grossly deceived. But of the other term, "psychotherapeutist," coming within the scope of this paper, a clear differentiation is not always made even by physicians, who have allowed medical amateurs of various kinds to pre-empt the psychic treatment of disease, to the great detriment of the public, and with a distinct diminution of honor to the medical profession; for the fact that we have permitted the intrusion of any blatant pretender to psychopathological knowledge indicates to the public our own shortcomings in that science.

The functions of the neurologist of the old school, some of whom survive, were confined to refinements of diagnosis in matters of organic nervous disease, in most of which treatment,

as then conceived, was of little avail. This is nowadays regarded as a very small though still essential part of a neurologist's work. Although of course it is impossible that all and sundry can learn from him, however excellent a teacher, diagnostic refinements which have taken him years to acquire, yet a modern neurologist should be a source from which should flow a fertilizing stream of knowledge conveying at least the broad principles of the advances of neurological science and art. These are tremendous, and only one who specializes is capable of compassing and estimating them justly. The making acquainted his professional brethren and the laity with the advances of neurology is the counterblast and antidote against the always pernicious doctrines of the psychologist-amateur, the cracked-brain enthusiast of psychic phenomena, the religious doctrinaire who affects the art of healing, and the most widespread of all, the advertising charlatan who seizes upon and perverts each new scientific acquisition with which at once to terrify and give promise of cure to a credulous public.

The more this is done, the clearer will medical men see that neurology, like the rest of medicine, perfects itself by observing and analyzing phenomena which appear to resemble one another, until characters are found which show their essential difference. When this is done, the phenomena are re-grouped in another synthesis or series according with characters which are essential. These principles in general medicine have led to such distinctions as those of renal from cardiac albuminuria, typhoid from typhus fever, catarrhal from croupous, of scrofula from neoplasm. The groupings may be illustrated by that which brought together pulmonary pthisis, tabes mesenteric and struma cervicalis into the common rubric of tuberculosis.

It was by these means that from the layman's rubric of "paralysis," Duchenne was able to separate motor disability into the three types of spastic, flaccid and ataxic. Since then, more numerous distinctions have enabled us to still further classify these types; and in combination with sensory symptoms and modification of the reflexes to construct a nosology which would have been unrecognizable fifty years ago.

The syntheses of modern neurology are perhaps best illustrated by the myopathies and the dyskineses. The separately described types of muscular atrophy—Landouzy-Dejerine, Erb-Klumke, pseudo-hypertrophic, facio-scapulo-humeral etc., after being first differentiated from the spinal myopathies and the neural degenerations, are now grouped together into the nosological entity of primitive muscular dystrophy.

Analysis of dyskineses shows that their fundamental character cannot be determined by tonicity, clonicity or by situation or intensity of movement, but must be ascertained by its genesis above all, although certain subsidiary characters are often confirmative. By this, the usual process of clinical medicine in differentiation, Brissaud demarked the tics, the knowledge of which is so important in the prognosis and treatment of nervous disease.

But the neurologist, like all scientists, does not stop here. He knows that only by the experimental method are some problems to be solved. It is by the application of this method that the phenomena of hysteria have been elucidated. In producing at will by psychic means hysterical phenomena and by removing them when desired, the psychogenesis of this disorder has been clearly established.

Not only this, but psychogenetic mechanisms have been and are being studied in animals. The epoch-making work of Pawlow need only be mentioned, so well-known is it.

These clinical supplements to post-mortem studies lead us to divide the causes of functional perturbations of the nervous system into three classes.

I. Alterations of the structure of the nervous system, as by inflammation, infiltration or degeneration.

II. Alterations of the medium in which the neurones have to perform their work by chemical substances, whether infections, intoxications or perverted secretions.

III. Alterations of the forces by means of which the neurones act harmoniously with one another.

Only when these dynamic disorders are confined to the lower neurones, should the term neurosis be applied, *e. g.*, angioneu-

rotic œdema and other disorders are entirely beyond the control of the patient by any psychic means whatsoever.

But when the disorder is generated, either from within or without, by impressions upon the sensory apparatus which arouse and associate themselves with the stored-up impressions of other portions of the cerebrum to form a psychological unit known as idea, whether accompanied by emotion or not, then we are entitled and indeed compelled to use the term *psychosis* for such a disturbance. The symptoms of hysteria certainly arise by means of this kind of mechanism. It is a moot point whether the symptoms of psychasthenia also arise thus. At all events, it is quite clear that an understanding of this genesis will prevent a clinician from confusing hysteria, really a psychosis, with such a neurosis as excessive motor lability. The mixed term psychoneurosis is no more rational than are such exploded parallels, typho-malaria and typho-pneumonia. There is no more essential connection between psychosis and neurosis than between typhoid, malaria and pneumonia.

I have found that a grasp of these principles greatly aids a practitioner in knowing when he requires to consult a neurologist; for he will not be content with such vague, indeed unintelligible notion as "hystero-neurasthenia," as expounded in the textbooks. If he is a clear observer, his experience has shown him the frequent failure of the therapeutic blunderbuss recommended for these cases, and he wants to know why he failed with some and succeeded with others. Even though he can eliminate structural disease, he often finds himself incapable of a pathogenic diagnosis, and it is then he realizes the need of assistance.

Nothing has been more gratifying to me in Washington than the successful issue of cases where patients have been seen for the purpose of making such an analysis in order that the physician might feel that he was directing his therapeutics in the right way.

This is the more so as it is impossible for a neurologist to himself treat all the cases he sees, time lacking and energies being limited. Besides, every doctor who cures a neurological case after consultation feels his power much added to and him-

self become a sun of flaming ray to scorch up the weed of charlantry. A relation of a few such cases will be instructive.

Hysterical Typhlitis After Appendectomy.

Case 1.—A girl of twenty was referred by Drs. Watkins and Stavely because of recurrences of right iliac pain with nausea and vomiting, but normal temperature and pulse, since three months. Two months before the appendix had been removed for similar symptoms, and found little changed, though containing a concretion of lime. At the time the ovaries and gall bladder were found normal. The pains recur every few days, and last some hours, and were relieved by morphine or the Scotch douche. Examination showed only a psychogenic hyperaesthesia in the right iliac fossa, controllable by indirect suggestions. Some colonic atonia, a slight retroversion and intestinal sand could not explain a manifestly psychogenic tenderness. So after a few days Dr. Watkins, armed by conviction derived from the consultation, entered the fray, and after a struggle of nearly two hours convinced the young woman that determination to conquer a longing for the comforting and anodynes which sickness brings would cure her. She went back to Illinois next day, and remains well.

Such rapid success is not common. The following similar case illustrates the need of persistence in persuasion.

Case 2.—Coccycodynic Neurasthenia from Hysteria.—A girl of thirty-four was referred by Dr. Lemon because unbenefitted by uterine suspension, amputation of the coccyx and other gynecological measures. She was lying stiffly in bed for fear of hurting the coccyx, with intense right iliac pain and tenderness. I found the latter modifiable by suggestion, as was the stiffness. There was a false *i. e.*, volitional, Kernig's sign, and the reflexes were sluggish. She wore the martyr smile. She professed anxiety to recover and go to work. Her condition was manifestly psychogenetic; but her sister's belief in its organic nature hindered recovery, in spite of the persistency of Dr. Lemon. But at my instigation he kept persuading, until finally improvement began, and one day the young woman, determined to put it to

the proof, went to work, succeeded in the fierce struggle against giving way, and is now more capable than she has ever been before.

Case 3.—Hysterical Hemiplegia from Worry; Simulated Babruskitol.—A chief clerk, aged 54, always rather peculiar in disposition, was seen with Dr. Clayton because of hemiplegia which occurred suddenly, apparently in his sleep one night. He had no pain, but was numb all over, could not get up properly, stuttered, lisped, his tongue seeming tied. At 11 a.m. Dr. Clayton found the right eye wider than the left (equal next day), and that all movements could be made, but the right grip was weaker than the left. He thought it hysterical on account of the history. In a few days he became completely hemiplegic, Dr. Clayton being doubtful. I then saw him.

Deep Reflexes were equal and not exaggerated; but volitional contraction suppressed right gluteal reflex. The right toe extended on stroking the sole. This, however, was done voluntarily. We shall discuss this later.

Motility.—The right arm was quite motionless, but moved when he yawned; the leg moved with difficulty; the contralateral synergic responses were equal, however. He stuttered in speaking. Sensibility was normal.

Psychic Examination.—This showed the pathogenesis. He was particular to old maidishness and dyspeptic all his life. He was subject to petty worries and easily annoyed. Lately he has feared losing his position to a pushing subordinate, and little family worries have occurred. A son had studied medicine; and he himself often had gone to the lectures, by which knowledge he understands the mechanism of his affection to be "a failure of the will to connect with what moves the arm." He defied me to make him move the arm by suggestion.

Treatment.—Entirely acquiescing, I explained the fault as not in the connection, but in the controller himself, and admitted my inability to make his arm move, but declared that he could by practice. Having disarmed him thus, I easily inaugurated movements on the spot by suggestion, and he flexed and rotated the forearm and moved the fingers. Then his wife and doctor were

called and shown the improvement. An encouraging prognosis was given, and a week's horseback tour advised. The iron was not struck while hot; so he did not recover for some time, but is now well.

This case is a strong recommendation to neurological consultation. The simulation of Babinskl's reflex could not have been detected without a very thorough training in clinical neurology. Again, the psychotherapeutic tact which acquiesced in his rebelliousness emanates from a clear grasp of the psychopathology of hysterical incapacity. It was only after I had made this move that I explained to him the genesis of his affection, showing that it was in the first place a defense reaction against his business and domestic troubles, a desire to escape from which caused the reaction in the semi-consciousness of a troubled night* which dramatized one of the pictures he had memorized as an amateur of medicine.

Case 4.—*Hysterical Phobia of Vertigo Founded Upon Slight Arterio-Sclerotic Occurrences.*—A clerk of 53, sent by Dr. H. A. Parker, because fearing crowds and anticipating evil. A hypertrophied heart, a blood pressure of 200, albuminuria and vertigo had been improved by nitrites, warm baths and less meat. Pressure now 155. Lues treated seventeen years ago. Now he often veers in walking and once fell in the street. He worries over small matters. He has "blank" attacks lasting for a second or so.

Reflexes.—Slight inequalities everywhere.

Sensibility.—Attitudes not clearly perceived, especially on right wrist; otherwise normal.

Motility.—Normal save a slight spread of the right foot in walking.

Rotation Tests.—Negative; no nystagmus. Thus cerebellar and vestibula anomalies could not be the cause of the alleged vertigo.

Psyche.—No defects nor anxieties.

*See author's "Genesis, Hysterical States in Childhood," *Medical Record,* Oct. 2, 1910; also "Hysteria, Nature of," *International Clinic,* August, 1908; "Pseudo-H," A. J. Med. Sc., August, 1910.

Treatment.—So it was explained that his fear of vertigo was suggested by his former real vertigo, which had greatly improved, so that he could be reassured; for there was no organic disease of the nervous system other than a slight arteriosclerosis. He was not likely to grow worse if he followed his doctor's advice. He continues at work six months later.

Case 5.—*Supposed Hysteria from Cardiac Dyspnoea in a Christian Scientist.*—A woman of 64 was recommended by Dr. Ramsburg because the Christian Scientist healer was feeling her limitation, and "wanted a nerve specialist." It is possible that she believed a neurologist was more likely to diagnose a psychogenic affection, and thus indirectly justify her treatment. The poor woman had for months been forcing herself to ignore the intrusions of "mortal mind," and had made a valiant struggle against insomnia, dyspnœa, anguish and fear, due to a greatly hypertrophied heart with failing compensation (pulse, 120), and arteriosclerosis, possibly contributed to by an old hyperthyroidism. There was no albumin.

She was advised to go to bed, take light diet and call in a proper doctor; and I was most explicit to the healer, who was convinced, in spite of herself, that here was something against which her doctrines availed nothing. They did not go to the doctor whom I had recommended; but I am told that the woman's condition is now tolerable.

The Mental Alienations.—A most important function of the neurologist is presented by cases of severe nervous perturbation due to the prodromes of some major psychosis leading to legal insanity.*

"Hysterical" Behavior Due to Dementia Praecox.—An example of such a case was referred by Dr. A. E. Miller.

Case 6.—It was a youth of 23, who declared to me: "I can hardly express my trouble, not finding the right words. It sig-

*See "Differential Diagnosis of Neurasthenia," Arch of Diagnosis, 1909, Jan. Charlotte Med. Jour., June, 1909.

nifies vocation and environment, *i. e.*, to find the pursuit which fits me." This declaration was suspicious, although many an ill-instructed lad might at times have rational doubts as to his career. and become mentally disturbed by difficult environment such as this boy's who was in the government service after a university course paid for by working his way and by the hard earnings of his father, a mechanic.

The psychoanalysis, however, soon revealed that during a previous breakdown, "confused by and deferring to his father's authority and the outside influences, he yet felt within a light penetrate his brain with prophetic fire." A ball of fire in the sky was later interpreted as a sign, but the Chancellor explained it was simply Jupiter. Two years later the "sign of love," the call of man for his mate, "brought him to the District of Columbia."

The analysis is too long to detail; suffice it to say that several weeks of insomnia produced an excitement and erratic and libidinous behavior which drew attention. It was not difficult to diagnose dementia precox. The importance of the diagnosis is the sparing of expense to a family ill able to afford it.

Supposed Hysteria Due to Amnesia by Sclerosis.—Loss of memory is often the first index of some neurological condition. To determine the source of this sometimes needs all available technique.

Case 6.—A woman about 50, referred by Dr. Ballock, is an example of aphasic amnesia of organic cause.

It is characterized by emotional distress and fear of insanity due to the loss of power to express the thought in words, although the patient feels that the idea is there, and can sometimes explain it in a periphrasis. My patient, even after ten minutes' study, is unable to recall and relate in words the story of Noah Webster. The following is her account, with much questioning. It begins with N. Noel? No. Noah? No. Newel? No. Noah? That's like it. Recognizes Webster. College? Yale. Profession? Lawyer. What did he do when young? Taught school. What else? Don't know. A book? Yes. Kind? Don't know. Dictionary? I suppose. Date? 1790, too late. Why? My idea earlier, but I don't get the rest. Was it in war time? The

other one. Name? Against whom? All other kinds in United States. Civil? Yes, that is it. Date? 1861. Did Webster live then? Too soon. Against whom, then? He was not old enough. Don't remember now, though he taught school.

She did not recollect the capital of Germany, nor in what country Edinburgh was situated, although she had once been a school-teacher; but she could reply quite intelligently to any question if she remembered the word to answer, and she could read and write; but in the latter there were frequent omissions of words, of which she was quite aware and deplored it. She could not recall the word she wanted, although she at once recognized it when proffered. Her condition intermitted more or less, but never became normal. The importance of the case is its diagnosis from a purely psychic amnesia, and to ascertain whether it was not due to a chronic intoxication or whether it was caused by the cerebral necrosis of arterial defect, as I finally decided, as metabolic treatment failed to ameliorate the condition, and its oscillations were very slight. That it was not a psychic case is shown by its entire unamenability to psychotherapy, by its genesis apart from any psychological cause, and by the nature and extent of the responses to pschometric tests too long to detail here.

Simulated Disease.—The detection of this is often a task of the neurologist. In my case of simulated hysteria described last year at the Tri-State Medical Association you will recollect that a criminal had been so often examined by physicians unaccustomed to the technic of clinical neurology that he simulated consciously the hemianaesthesia of the hysterical type, *i. e.*, (1) extending to and ceasing at the midline, (2) absolute and (3) affecting all segments equally in the same limb. Although of course he was not amenable to persuasion, he was detected by reacting to pain while his attention was diverted.

Case 8.—*Simulated Quadrantic Hemisanopsia.*—An ex-sailor of 41 was referred by Dr. Henning, to whom he had been sent by Dr. Burch because of inability to perform more than light work. He has a small pension and *has applied for an increase.*

*Translations, 1910; also Am. Jour. Insanity, Oct., 1910.

He declares that he was believed an epileptic in the navy, and that since the accident of falling out of his hammock while asleep fifteen years ago (from which he came, too, totally blind, remembering nothing), life has seemed a dream, it is hard to understand people, his memory is poor, and he is very nervous on the street, not being able to see out of one side of the eye, and bumping into objects.

As the hemiopic person always carries his head turned toward the side of the sound retina and has to turn his head still further to see objects on that side of him, I suspected this man at once; for there was no deviation of the head. I accordingly nonchalantly asked him to move a dark screen so that he could be hidden while stripping. He did this in a dark corner without any head movement to indicate loss of vision in the periphery of either visual field. But on approaching the field with test objects in the usual way, he declared that objects were only seen as they impinged upon the right upper retinal quadrant, *i. e.*, below and to the left.

As to his apparent good faith there was added a loss of the right achilles reflex, and some inequality of others along with an uncertainty of the sensibility to the diapason on the maleolli. It was necessary to confirm either the patient's opinion that his visual field was restricted or my own that it was not.

As the pupils reacted normally and the optic papilla was not diseased, an anterior lesion was excluded. The diagnosis of simulation was clinched by his wincing when I placed before the right field of the right eye the percussion hammer with which I was ostensibly testing the orbicular response to a tax on the facial nerve. This took place, both from above and below, on the left and right side, and conclusively proved that he actually perceived objects with all parts of the visual field.

It is hardly conceivable that such a syndrome had occurred by suggestion in medical examination, and I believed that it was intentional. This was proved when he visited me for the second time, after I had told his doctors what I had found; for on presenting the hammer in the same manner as before, no wink occurred, the patient staring fixedly before him and declaring that

he saw nothing except when the hammer was below to the left. It was, however, easy to show that he was feigning, by holding opposite the mid-horizontal plane of the eyeball, just within the visual field, two strips of color. He saw only the one color; and when they were reversed similarly. But he saw the colors which impinged upon the blind field, and not that upon the field which saw. Hence his feigning was deliberate, as he had suppressed the reaction by which it had been formerly detected, and yet still showed, unknown to himself, that his blind field saw.

In alleged tramatic neuroses, a neurologist properly trained can be of great use. Of genuine cases I could report several, cured by their own doctor after consultation.

Differential diagnosis of parakineses, dyspineses and myopathies, loosely called choreiform, is an important neurological duty, if success is desired in treatment.

Case 9.—Barking and Bowing Tic of Hysterical Type.—A striking instance of the success of rational procedure where empirical ones had failed occurred in a young Hebrew in North Carolina with ileocolitis. He suddenly developed on going to bed one night an intense clonic contracture of the recti-abdominis and diaphram. This recurred every night, often keeping him awake for hours. It became less and less controllable, and soon occurred on sitting during the day. Then it began to come on standing, until his life was a burden. The application of electricity with the fervid assurance of its efficacy had made no impression; nor did "powerful and infallible" medicines. The boy came to Washington, and was at once referred to me by his physician, Dr. T. C. Martin. On recognizing that the disorder was a tic of hysterical type*, the psycho-motor discipline devised by Brissaud was employed. In this case it consisted of inducing the patient to perform slow, even ryhthmical contractions of the recti, while taking slow, deep breaths. In this way, control was gained over the muscles, so that when the paroxysms were about to begin, he had now a means of mastery, and substituted the newly learned movement for the automatic one which formerly took its own bent. He learned in one day, too quickly, as it

*See Tris & Sharens Month. Cyclopedia, Jan., 1910.

proved; but after a slight relapse two days laters, another sitting cured him, and he was shown recovered. Even for this very simple case empiricism had failed where a little psychopathological knowledge reached the cause, and led to the very simple means used for its removal without either psychoanalysis or reconstruction of the mentality. Such a symptomatic cure must of course be extended to a pathogenic one, *i. e.*, the re-education of the patient's hysteriza ability.

Clinical Acumen not Replacable by Laboratory Diagnosis.—Before the Wasserman reaction and examination of the cerebrospinal fluild were available, perhaps the most important diagnostic function of a neurologist was the detection of syphilis of the nervous system. There is a widespread belief that these laboratory methods have put an end to the need of the technique of clinical neurology. This is by no means the case; for of tabetics only 50 per cent react to Wasserman's test, and even cytological examination may be negative for a time in a few cases.

I have already reported (N. Y. Med. Jour., Mar., 1910; Va. Semi-Monthly, Nov., 1909), two "neurasthenic" cases which by means of refined clinical methods were correctly diagnosed as pre-paresis and pre-tabo-paresis, and in consequence of the early treatment thus made possible are now completely rcovered.

Early Diagnosis of Tabes-Dorsalis.—I wish here to report a case of pretabes in which the clinical signs enabled me to persist in this diagnosis in spite of a constantly negative Wasserman reaction, and the clearing up of bladder symptoms under local treatment. By pre-tabes is signified the pathological condition of chronic luetic lepto-meningitis involving the spinal roots or cranial nerves.* The irritation of the nerve fibres is characterized clinically by pains of variable kind, paresthesiae, hypoaesthesiae rarely hyperaesthesae of the limbs, trunk and viscera; usually diminution of the reflexes, hypotonia, some asthenia and occasionally temporary paralysis and muscular atrophy.

I persisted in this diagnosis because of the radicular distribution of intermittent burning and twisting pains on the internal surface of the right leg, along with a loss of the Achilles and

*Pathologic Prodromes of Taboparesis, Med. Record, Feb., 1910.

right patellar, and gluteal diminution of left patellar and bulbo cavernosus reflexes, along with a hypotonia of the hamstrings and a slight Romberg of the right leg with diminution of deep sensibility, and slight hyperaesthesia of the lower lumbar and upper sacral segments. It was not until after a mercurial course which cleared up the symptoms for a month, that a lumbar puncture was made revealing an increase of plasma cells. Ehrlich's salvarsan was then given, with relief for only a week; and mercury has now been resumed. In the meanwhile a partial positive Wasserman reaction declared itself.

Thus the correct interpretation of neurological signs has spared five months of degenerative changes to a patient to whom early treatment is of the profoundest importance.*

The proper treatment of intra-cranial neoplasms, their early removal, is possible only when diagnosis is made before most practitioners will suspect a tumor. The need of a thorough examination by one versed in neurological technique was insisted upon at a recent symposium here, and need not engage us tonight.

Nontabetic Ataxia.—Ataxia is a symptom which does not mean tabes in all cases. It sometimes comes from cerebellar disease,* sometimes from disease of the peripheral nerves and may be psychic occasionally. It is a delicate neurological task sometimes to make these distinctions, which are of the greatest importance in prognosis and treatment.

I have under consideration three cases of cerebellar defect. One of eleven years' standing, due to malarial thrombosis, for which nothing can be done; the second of unknown origin, similarly hopeless, a third seen recently, probably of familiar type. A fourth case, a child of four, was the progeny of a diabetic mother, and is possibly due to a genesis of the cerebellum. A fifth case recently seen at Norfolk in consultation with Dr. Lile, of Lynchburg, showed marked ataxia of cerebellar type. As it was a child under seven, one might have suspected congenital dystrophy, but a progressive dementia made one believe it a case of

(6) See "Treatment of Parasyphilis of Nervous System." Transactions of Am. Therapeutic Association, 1910; also in Month. Cyclopedia, Dec., 1910.

juvenile paresis, which opinion was confirmed by a positive Wasserman reaction.

In the differentitation of *convulsive movements,* too, neurological knowledge and skill are essential. As for example in the convulsive attacks of symptomatic epilepsy, of which I have spoken in a recent article giving examples in which early diagnosis led to proper treatment and arrest of the causative process, which was sclerogenic toxicosis.

It was adequate neurological diagnosis again which differentiated the condition of these patients from epilepsy proper.

Narcolepsis.—Fits of various kinds have to be differentiated from one another, not only as to characters but as to pathogenesis. I have recently seen four cases having *narcoleptic attacks.*

One occurred in a young man of nineteen from cyclical intoxication, possibly through pancreatic disorder, as he showed the Cammidge reaction in the urine, and was intolerant to meat proteid.* It was possibly congenital, as his sister had gone through a depressive episode of confusional type of metabolic origin.

The second case occurred in a boy of eighteen, who on several occasions lost consciousness for three hours, the first time after drinking cold water on a hot day. He has a slow pulse, and eats enormously of buns and ice cream and drinks a large amount of coffee. There were no epileptic phenomena except irritability and sullenness of temper.

A third case (a girl of twenty-two) of narcolepsy has gained forty-five pounds in weight in four months, and had sudden dimness of vision and loss of memory. Suspecting pituitary enlargement, the visual fields were examined, and showed respectively lateral and inferior partial scotomata. The X-ray showed a deepened sella turcia.

It would have been gross error to have given bromides to any of these cases. All are doing well, the first and second upon proper diet and hygiene, and the third by X-ray treatment of the

*"Diagnosis of Diseases of Cerebellar Apparatus," Arch of Diagnosis, Jan., 1910.

pituitary hyperplasia, which immediately terminated the narcoleptic attacks and removed the headaches and depression. But it was neurological experience which permitted of the diagnosis.

The pathogenetic interpretation of nervous symptoms due to arterio-sclerosis is of great importance from a therapeutic point of view. Three such cases will be published this month, all successfully treated are now at work as a result of correct diagnosis. They were seen with Drs. Ray, Balloch and Altman, respectively.

Intermittent Claudication of Labyrinthine Vessels Mistaken for Psychastenia: Cured by Opotherapy.—Vertiginous attacks in a woman of twenty-nine referred to Dr. Barton, had endured for years. "Groaning" in the head ushered in the attack. An aurist had treated her without avail. She frequently fell, always forward; and sometimes vomited during the attack. A perfectly natural phobia had developed in consequence, which caused Dr. Barton to diagnose psychasthenia, and thus sent the case for advice.

The absence of objective neurological changes, as well as of initial psychic disorders, and the presence of dermatographia made me believe this a vasomotor neurosis, due perhaps to adrenal aberrance. I recommended adrenalin extract, and she has only had one attack since taking it, and is in every way in better health. Now this case might have been diagnosed epilepsy, cerebellar disease or hysteria, as well as psychasthenia by an observer not well acquainted with the interpretation of neurological signs. And an operation, bromides or psychotherapy might have been tried without benefit to the patient, and to the discredit of our profession.

The Relics of Poliomyelitis.—Only by a skilled neurological examination is it sometimes possible to predicate a former poliomyelitis. I have seen a number of cases lately which illustrate this. Complete paralysis of one serratus magnus was all that remained of a poliomyelitic attack, which had caused unilateral tremor, hyperaesthesia and oculo-motor paralysis with some weakness of the arms in a woman of 30 referred by Dr. Dunlop.

In another case, which had not been diagnosed during or after the acute phase, although examined by three well-known Boston

men, was referred to me four months after the attack for electrodiagnosis by Dr. Dunlop, who suspected that a weakness of the legs might be poliomyelitic. I found the Achilles reflexes absent and the right sural muscles irresponsive, and the left hardly so even to strong currents. On the one side, excitability of the anterior tibial group was diminished, and on the opposite side that of the peroneal; and one rectus abdominus was less excitable than its fellow. The diagnosis of multiple neuritis, which had been given, was utterly inconsistent with so unequal a distribution of muscular atrophy and the absence of sensory symptoms. So I affirmed poliomyelitis, a diagnosis which the patient saw confirmed by Starr, Schaffer and Holt of New York. A proper neurological diagnosis in the first place would have spared this child much delay in treatment.

Sexual Aberrations.—In disharmonies of the sexual functions a neurologist may afford much help to practitioners unacquainted with psychopathology. It is necessary to find out whether simple asthenia, hysterical fixed idea, or psychasthenic obsession or phobia is responsible for a psychic abnormality of the healthy sexual life. Besides this, the affect of shame, which has become attached to much of the sexual life through prudish misconceptions of social relationships, is often an important element in the life of neurotic patients. After it has been unravelled by a psychopathologist, I believe it quite possible that an intelligent physician interested in this aspect of therapeutics might well conduct the re-education and guidance of such patients. It has not yet fallen to me to collaborate in such an arrangement, all the doctors consulting in such cases preferring that I myself should conduct the treatment.

I have related only successes. Of course there are failures. If I have not cited them, it is from no intention to misguide you by rose-tinted lenses. But it is high time that the prevailing *non possumus* which is fashionable to cry regarding nervous disorders be substituted by an attitude more rational, because more true. So I have adduced facts tonight merely to show the absurdity of the current pessimism. It is only the cry of the incompetent and of him who has observed only the work of

the charlatan or quack. He, however, who thinks that cures can be effected by assurance without knowledge, vastly miscomprehends modern neurology and has reason for pessimism.

The Use and Need of Real Neurologists.—In these days of howling from the mountain top, only the expert is competent to estimate the value of claims in the more recondite fields of human knowledge. As the Scotch say, "Facts are chiels that winna ding." The facts that I have laid before you are pregnant with meaning for those who think. They show how greatly therapeutic power is augmented by the diagnostic assistance of a properly trained neurologist. I have taken it upon myself to present this thesis because I have been convinced it is hardly at all realized, and because we see so widely and deplore so much the vogue of the illicit medical practice which preys mainly upon the very patients who are most in need of neurological diagnosis.

It is incumbent upon us to see that proper neurological training is given to the coming generation of medical men.* To do this properly, trained men able to convey their knowledge clinically, must be appointed and given facilities in the hospitals, so that students and medical men can receive the benefit of the advance of knowledge and power. Only in this way can we combat the charlatan.

Of the even larger work of neurological science in aiding social measures against disease, time will not allow me to speak. But even the laity are beginning to realize the need of special assistance in preventing mental unsoundness, in neurological inspection of children, in sociological measures for helping people who are peculiar, in the means of preventing crime and of reforming criminals. In all these, the science of psychopathology is indispensable; and every enlightened body of laymen would be the better for the assistance of a neurologist of deep learning and broad outlook.

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*See "Requisities for Treatment of the Psychoneuroses and the Abuse of Psychotherapy by the Voice of Laymen." Old Dom. Jour. Mount Cydt., Cal. State Jour., etc., 1909. July, August.

Selected Articles

From the First Surgical Clinic of the Royal Hungarian University at Budapest (Hofrat Prof. Julius Dollinger, Director).

THE SERUM TREATMENT OF SUPPURATIVE PROCESSES.

BY DR. EMERICH GERGO, *Assistant of the Clinic.*

(Translated from the Deutsche Zeitschrift für Chirurgie for the Nashville Journal of Medicine and Surgery by Howard S. Jeck, Ph.B., M.D., Nashville, Tenn.)

Induced by my chief, Hofrat Prof. Dollinger, I began to test the practical value of antiferment-serum treatment a year ago. One hundred and sixty cases, which I observed most carefully, constitute the basis of my report.

For many reasons I cannot go into a searching discussion of the practical methods of employment; moreover, I can assume that the technic of the procedure is known*, whether it be by injection or serum-bath, serum-dressing, etc., and shall confine myself to the results of my work.

First of all I shall describe the clinical observations, which are of the greatest importance.

Clinical Observations in the Use of Antiferment.

I. In Abscesses of the Soft Parts.

(a) The Advantages of the Treatment.

In the treatment of abscesses of the soft parts (128 cases), "the domain of antiferment treatment," as E. Müller expresses it, I became conversant with the following advantages of the treatment†:

*From a lecture in the Surgical Section of the 16th International Medical Congress at Budapest, Aug. 31, 1909.

†As antiferment serum, I use, for the most part, ascitic fluid, which is very excellent. Less frequently I employ hydrocele fluid, and recently I have also used Merck's Qeukofermantin.

1. *The method of procedure is extremely simple and can be accomplished in a very short time* (4—5 *minutes*).

The site of the operation is painted with tincture of iodine, only a few seconds being consumed thereby for the preparation of the patient; instead of making large incisions, the abscess is simply punctured with a strong needle and its contents withdrawn by means of a syringe which aspirates freely: repeated irrigations of the abscess with serum thins the thick pus in the mass so that it can be sucked out through the apex; then pure serum is injected into the abscess, on an average about one-third to one-half the amount represented by the pus removed; the site of the puncture is then covered with a little piece of gauze held in place by adhesive plaster. Only in cases of very marked inflammatory symptoms is a Burrow's vapor dressing recommended.

2. *The healing of the abscess follows quickly and surely.* (The very large and deeply situated abscesses are an exception. See the indications, p. 12.) For the most part, the pain experienced by the patient ceases immediately after puncturing; the fever falls; the inflammatory symptoms, the inflammatory edema, the accompanying lymphangitis, etc., almost always subside by the next day, or else disappear completely by that time.

Hand in hand with the external signs of improvement goes the process of healing inside the abscess. The breaking down of the tissue into pus ceases, the necrotic portions of tissue are separated from sound tissue and at the next puncture can be removed, after thinning the contents of the abscess with serum, or they are removed spontaneously after the formation of fistulae: the contents of the abscess is frequently cloudy or bloody for the first day or two—in the cases of larger abscess we do not get clear, pure serum until a repetition of the puncture is made. The pure serum is proven sterile by a bacteriological examination.

The leucocytes found in the serum show an increase in their phagocytic powers.

3. *The after treatment is simple and economical.*—The tedious and more or less painful changing of bandages as is necessary

after an incision is dispensed with; a simple examination of the patient once or twice afterwards usually suffices.

In more than half of my cases I succeeded with a single puncture; in a third of the cases I had to repeat the puncture once, and only in the cases of the largest abscesses, with a quantity of pus over 100 c.c. was I forced to aspirate from three to five times.

4. *The length of the treatment is very much shorter in most cases, compared with former methods.* The length of the treatment is in direct proportion to the size of the abscess, *i. e.*, to the quantity of pus withdrawn.

The following table shows the average length of time required by treatment according to the amount of pus removed:

Pus content	Treatment
1— 5 c.c.	3 days
5—10 c.c.	4 days
10—15 c.c.	5 days
15—20 c.c.	10 days
20—50 c.c.	11 days
Over 50 c.c. (up to 1 1-2 liters)	

From the above it is evident that the time required by treatment for the smallest and small abscesses (those containing 15 c.c. of pus) is for the most part shortened; in the case of the larger abscesses, the advantage as to time is not so striking, while in the case of those containing much larger quantities of pus (50 c.c. to 100 c.c. and more) the treatment is just as long drawn out as in the earlier methods. We must prove these facts well founded for the purpose of establishing precise indications for the use of the antiferment treatment.

In that connection I shall write a few words concerning the time necessary for a cure. In any event the latter is shortened, although by our closed method of treatment, puncturing the abscess through the soft parts which cover it, we cannot always tell with certainty when the abscess is completely healed from an anatomical standpoint. The subsidence of the clinical symptoms is not a sufficient guide as to the progress of healing inside of the pus cavity.

According to my opinion, there is not as yet any question of an anatomical restitution at the end of the treatment in most cases. However, it may require several days. As an advantage of the closed method of treatment the fact should be considered that most of the patients may pursue their respective occupations without any danger of a relapse, and after the treatment is finished may even await complete restitution of the tissues without being under medical supervision. Continued medical supervision is only necessary so long as local inflammatory symptoms or general symptoms such as fever, acceleration of pulse, etc., exist.

Healing is independent of the kind of bacterial excitants which may be found (staphlococci, streptococci, diplococci, etc).

5. *The cosmetic result is excellent.* In abscesses of the face and neck, particularly in women, a means of avoiding the disfiguring scar caused by an incision, cannot be too highly commended. Whoever has seen abscesses of this region, the size of plums and even larger, suddenly disappear aftr a single treatment and without any external sign of an operation, will the more readily appreciate the good points of this method.

6. *The functional result is better for two reasons*:

(a) By the puncture-treatment, a scar formation at the point of incision, and with it the ultimate cicatrical disfiguration is avoided; and (b) the antiferment which is introduced, through its physiological effect, prevents the further progress of the suppurative process, which in itself would lead to a more extensive cicatricial formation.

Almost all of my cases treated with antiferment healed in an ideal manner, without scar formation.

B. The Untoward Effects and Drawbacks of the Method.

As untoward effects and drawbacks of the method I could mention:

(a) The immediate effects in connection with the treatment.

1. *Pain in the neighborhood of the abscess.* This may be avoided by making sure that no irritating preservative has been added to the serum, and also by taking care not to overdistend the abscess by means of too large a quantity of serum.

2. *Headache and vertigo* I observed only once; in 24 hours these symptoms had disappeared.

3. *Chill during treatment* I noticed in three cases; it lasted continuously for some hours, but on the next day the condition was again normal.

4. *Acceleration of pulse.* On one occasion the pulse was accelerated during the entire treatment. N. B.—Serum exanthema or the appearance of anaphylactic symptoms I never observed after the antiferment treatment.

(b) Troublesome Sequelae Later on in the Treatment.

1. *Formation of sinuses at the site of the puncture.* This occurred in a fourth of the cases, for the most part several days (usually on the fourth day) after the puncture. Relapses in connection with sinus formation never occurred; all the sinuses closed up spontaneously, most of them within a week.

2. *A continuation of abscess formation in spite of the treatment,* which was correctly carried out, I saw only once. This was in the case of an old, decrepit patient, with a cervical abscess as large as a child's head.

3. *Prolonged absorption of the injected serum* occurs only when an excessive amount of the antiferment solution is injected into the abscess. In case of such a complication, the superfluous serum should simply be withdrawn, remembering, however, that too copious a withdrawal of this serum may lead to a relapse.

It is better to wash out the abscess thoroughly, allowing a little of the serum to remain, than to fill up the abscess with an excessive amount of serum.

4. *Pigmentation of the skin over the abscess* I saw in two cases.

5. *Marked scar formation at the site of injection* I saw once. Both complications lasted for some months. Aside from all of these harmless complications, I never observed any directly harmful influences of the antiferment treatment.

II. In Infiltrating Suppurations.

In infiltrating suppurations with reference especially to the more diffuse suppurative iflammations, whitlow, phlegmon, phleg-

monous mastitis, etc. (16 cases), my observations lead me to the conclusion that a cure in these cases is possible only when the infiltrating process has caused the formation of a circumscribed abscess.

Otherwise the whole advantage of the method consists only in this, that where the serum comes in direct contact with the wound (3), the secretion dries up, the necrotic portions of tissue are outlined in one or two days and the wound soon clears up. Further progress of the process is not limited, however, by serum treatment.

III. In Bone Abscesses.

In bone abscesses (4 cases), after the area affected is exposed and a long continued treatment with serum baths, serum dressings and finally serum injection is instituted lasting for weeks even, nothing other than a clearing up of the soft parts of the wound is accomplished; the process in the bone, however, advances in spite of this, and we are finally forced to a radical procedure.

IV. In Bone Sinuses.

Bone sinuses (5 cases) come under the same head as bone abscesses.

V. Sinuses of the Soft Parts.

Sinuses of the soft parts, (7 cases), especially if they are broad and superficial and are adapted to serum-tamponade, soon show an improvement—that is, a drying up of the secretion and the fistulous tracts are filled with clean granulation tissue. The fact that the method in infiltrating suppurations and bone abscesses does not work well is based naturally on the theoretical principles. The antiferment serum can only be effective where it is brought into direct contact with the wound surface on all sides (Müller), where, in short, the antiferment chemically unites with the proteolytic leucocyte ferment by direct contact. That physical hindrances to this preliminary condition, such as we have in infiltrating suppurations and bone abscesses work against an effective treatment, is obvious.

The Indications for Antiferment Treatment.—If I may be allowed to limit the sphere of usefulness from the observations

which I briefly cited, I would give the special indications for antiferment treatment as follows:

1. *Antiferment treatment is indicated in highly inflamed abscesses of the soft parts,* with the following cases excepted:

(a) In abscesses of excessive size (*i. e.,* excessive distention of the abscess). In abscesses with a content of 50 to 100 c.c of pus, we save nothing in length of time consumed by treatment, in trouble or expense.

(b) In deeply seated abscesses. The site of pointing of such abscesses is often doubtful, and cannot always be determined with certainty from the clinical signs. Our surgical procedure then, however, is only useful when we know the site of pointing. The non-observance of this golden rule may lead to unpleasant surprises. I recall a case of osteomyelitis of the thigh, with most pronounced symptoms, which we treated; a paranephritis, without any local symptoms, constituted the exit of the pus.

(c) Marked weakness of the patient. Here we should lose no time with the antiferment treatment. Especially when the abscess is somewhat larger than the size indicated above and occurs in very old or decrepit persons, a speedy and free incision is more advisable.

(d) Inflammatory tuberculous abscesses are more suitably treated by incision. In all other cases of abscesses of the soft parts, the antiferment treatment constitutes an ambulatory procedure par excellence.

2. *Antiferment treatment is indicated in infiltrating suppurative processes when the original diffuse process has led to circumscribed pus, i. e., and abscess.*

In all other cases of infiltrating suppurations, the antiferment treatment is without avail, since it does not prevent the advance of the process itself.

3. *The method is indicated in the treatment of sinuses of the soft parts. The secretion stops, the fistulae are filled with clean granulations and the subjective symptoms of the patient are appreciably improved.*

The Extension of the Antiferment Treatment to other fields of Surgery and to allied conditions.—With the observance of this in-

dication, the antiferment treatment may be extended to various fields of surgery.

Beside the usual treatment of subcutaneous abscesses, abscesses of lymph glands and mastitis, I tried the method in other special fields of surgery. It was successful in abscesses of the tongue (2 cases), in inflammatory swelling of the gums (4 cases), in peritonsillar abscesses (8 cases), in buboes (6 cases), in para-rectal abscesses (3 cases), etc.

Kolatzek (Tübingen) has just recently alluded also in an experimental way to the extension of the method to suppurative conditions of the internal organs (38th Congress of the German Society of Surgeons, Berlin, 1909). He considered suppurations of the body cavities (meningitis, pyothorax, and finally pericarditis purulenta), suppurations of bursae, of the joints, suppurative inflammations of the urinary passages etc. Unfortunately I am still lacking in sufficient experiences to give an opinion here. I can only second the words of Müller when he says: "More general work is needed in order to study more exactly the good and the bad points of antiferment treatment."

The antiferment treatment has also proven efficacious in still other fields. Lenz (Breslau) tried the method in eye diseases. A. Fuchs (Breslau) reported some favorable experiences with it in gynecological work. At all events, my experiences with abscesses of the tongue, gum abscesses, peritonsillar abscesses and buboes point favorably to an extension of the method to the fields of stomatology, laryngology and urology.

Attempts to Replace the Antiferment Treatment by Other Means.—A further question of practical significance might be whether or not it is possible to replace the antiferment treatment by other methods and the antiferment sera by other solutions.

Simple puncturing will give results only in quite small abscesses (those having a pus content of 1 to 2 c.c.). This, however, fails sometimes.

A physiological salt solution (0.9 per cent) harms rather than helps; especially the injection of very large quantities of salt solution often leads to the appearance of unfavorable symptoms. I saw better results in the treatment with salt solution when I added

calcium chloride in minimum quantities (0.001 to 0.01 per cent). This is explained theoretically by Hamburger and Hekma, who claim that the addition of minimum quantities of calcium ions enhances the phagocytic action of physiological salt solution considerably.

Likewise the addition of calcium chloride seems to arrest the toxic action of salt as a cell poison (Loeb).

The injection of animal sera (horse serum, beef serum) is accompanied by extremely violent reactive manifestations. Hand in hand with the latter we have an active hyperleucocytosis and an increase in phayocytic protective power, as is proven by the extensive trials of Fejes (Budapest).

I tried animal serum in over 100 cases of suppurative processes and finally succeeded in arriving at a dose for its clinical effect. A simple washing out of the abscess with serum suffices to bring about that degree of hyperleucocytosis which is necessary to a cure of the abscess, by retarding the excessively violent reactive symptoms. If one wishes more pronounced inflammatory signs, filling the abscess with just a few cubic centimeters of animal serum (1 to 5 c.c.) is indicated.

The larger doses of animal serum are employed in the treatment of tuberculous processes.

In surgery, the physiological treatment of suppurative processes is not new. Recently it has been brought forward by Mikulicz with his nucleinic acid treatment and Bier with his hyperaemic treatment. To these methods are linked the antiferment processes of Müller, Kolaczek and Peiser; also the treatment of suppuration with physiological solutions and animal sera, which I have just mentioned briefly, belong here.

With all of these methods, however, there is something in common. They are not similar in all respects to the physiological preventive measures, but only in one or the other of their chief manifestations. However, they cannot be otherwise at this time. A truly ideal method for all cases of surgical suppuration has not yet been given nor will it be given until the chaos of our present views concerning the natural protective agents of the organism is dispelled, until the smallest details of the processes

of protection against infection are completely understood—in a word, not until we thoroughly grasp the complicated workings of physiological protective measures in all their phases. On these grounds only will we be in position to effectively support the natural curative forces in all cases of surgical infection.

That would be the ideal method of physiological treatment! At present it is only prospective—still, such a treatment may be arrived at by means of most extensive and searching attempts at physiological wound treatment. Our way, therefore, seems to be right. Directed in our course anew by the work of Edward Müller, his service to us is everlasting.

Peripheral Neurosis Due to Tobacco.

Von FrankHochwart first mentions cases of neuralgia, due evidently to excessive smoking. He has notes of thirty-one cases of sciatica and twenty-two of brachial neuralgia. Diffuse pains, not restricted to individual nerve areas, were represented by 110 cases. The nature of these latter is obscure, as in some cases an arthropathy seemed to be present. In regard to a nicotine polyneuritis one must be noncommittal. The author has seen four cases in heavy smokers which could not have been due to alcohol or lues. A few cases have been reported by others. The condition termed by Erb *dyskinesia intermittens angiosclerotica* is abundantly recognized by its sponsor as occurring much more frequently in heavy smokers than in any other class of people. It is very largely a tobacco angioneurosis. The tremor and fibrillary twitching due to tobacco are well known. The nervous visceral affections due to nicotine comprise first of all cardiac irregularities of all kinds—palpitation, arrhythmia, pseudoangina pectoris. Respiratory phenomena of the same origin include dyspnea and Cheyne-Stokes breathing. There is possibly such an affection as pseudoexophthalmic goiter due to tobacco poisoning. The dyspepsia, loose bowels, and constipation due to tobacco are nervous in type. Tobacco is known to favor nocturnal pollutions and premature ejaculation, while many heavy smokers are more or less impotent.—*Medical Record.*

URGENT SURGICAL LESIONS WITHIN THE ABDOMEN, WITH SPECIAL REFERENCE TO DIAGNOSIS.

BY H. HORACE GRANT, A.M., MD., *Louisville, Ky.*

The object of this paper is to present a few important clinical facts well known to a surgeon in active practice, and yet with which, as a rule, the average physician is not unduly familiar. In urgent surgical lesions of the abdomen, the meaning and significance of diagnosis to the attendant is not so much the classification of the disease from which the patient may be suffering, as determination of what the situation actually demands.

Considering the well-nigh perfect surgical technic of the present day, it is almost an open book what should be done after a correct diagnosis has been made, and consequently more than ever before the value of surgery hings upon promptness, together with accuracy of the mental picture of the pathological lesion or lesions present.

There are four acute lesions within the abdomen to which attention is especially directed, because, in the writer's judgment, all demand surgical intervention as soon as recognized. These are, in the order of their frequency (1) fulminating appendicitis, (2) intestinal obstruction, including strangulated hernia, (3) extra-uterine pregnancy, and (4) intestinal perforation.

At the bedside of every seriously ill patient, the most important question to the attendant is not always the nature of the disease with which he is confronted, but what can be immediately accomplished looking toward relief of the patient. And when the exact pathology cannot be definitely determined within the time limit of safety, the attendant must understand that his duty is to invoke aid in the remedy suitable to the class to which the symptoms belong. If the intelligent applcation of surgery be too

long delayed by searching for the specific pathology in cases demanding treatment, it may then be too late to be of benefit to the patient; in other words, the practical feature of diagnosis under such circumstances is to determine: "Do the symptoms present justify the conclusion that the case belongs to the group demanding prompt surgical intervention?" Practically speaking, the lesions included in this group lead to death by one of two avenues—peritonitis or sepsis—usually by both; and, as a matter of fact, nothing can prevent these developments except prompt surgical action. It is true, however, that a patient with appendicitis, even the most threatening form of this treacherous disease, will sometimes go on to recovery without operation.

Appendicitis.

Nearly every physician is presumed to be familiar with the classical symptoms of surgical appendicitis, and, in the light of present knowledge, there is rarely any doubt as to the diagnosis. The colicky pain which develops early, attended by vomiting, constipation, elevation of the temperature, and localized tenderness over the characteristic area, furnish a typical mental picture of an inflamed appendix, which has induced (a) arrested peristalsis and colic, (b) reflex vomiting and inactivity of the intestines, and (c) when the reflex action subsides, colic is superseded by localized tenderness over the site of the lesion.

The local symptoms are often proportionately more severe in the earlier stage of the disease than the pulse and temperature of the patient would appear to indicate. However, the pulse ordinarily increases numerically in ratio with pain and functional distress. The temperature is variable, and while there is always some elevation, until infection becomes constitutional, it may not be high.

With such a picture before him, the attendant must say to himself: "If this continues twenty-four hours without improvement, local infection of the peritoneum is certain, while abscess, gangrene and perforation constitute dangers, the probabilities of which are absolutely undeterminable." Previous to perforation,

the symptoms of appendicitis are distinct, but thereafter they may be included in a group to be described later.

If the diagnosis be made before perforation, the invocation of surgery will insure recovery of the patient in 90 per cent of even grave cases, and the diagnosis may be safely based solely upon localized tenderness to pressure at McBurney's point and elevation of temperature, with or without the presence of the other symptoms noted. In children, less confidence can be placed on local tenderness, although by careful investigation a tender point can usually be determined. However, in children, the evidence of natural distress, *i. e.,* pain, vomiting, etc., are more notable proportionately.

The symptoms detailed characterize the early stage of the variety of appendicitis demanding prompt surgical attention, and, in the hands of the experienced surgeon, the mortality is less than 10 per cent. In the judgment of the writer, operation is advisable in any stage of appendicitis as soon as the diagnosis is made.

Intestinal Obstruction.

In so-called dynamic or mechanical obstruction of the intestine from strangulation by bands, hernia, intussusception, or volvulus, particularly when the obstruction is complete, the mental picture before the attendant must not be one simply of obstruction of the fecal overflow, which is of no serious import, but arrested circulation in a highly vascular structure, with the certainty of local death of the part, sepsis and peritonitis, exhaustion and death; and he must understand that the mechanism causing the obstruction will be aggravated by the application of any force from above, and will likewise resist any force from below; that every hour of delay represents a march of the destructive process toward certain dissolution of the patient.

The diagnosis must be made promptly, for relief in all cases of intestinal obstruction should be obtained during the first twenty-four hours, *i. e.,* before peritonitis supervenes. In external strangulation of the intestines due to hernia the diagnosis can be made at a glance, and no time should be lost in preparing the

patient for operation where the hernia is not easily reducible by taxis.

It may seem an unnecessary expenditure of words to describe the treatment of strangulated hernia, but any one who thinks so over-estimates the general rank and file of the profession. In some quarters, for instance, as a result of delay, prolonged taxis, injections, poulticing, etc., it happens that every day of the world curable patients are permitted to perish.

The four cardinal symptoms of intestinal obstruction are: (a) obstipation, (b) colicky pain, (c) vomiting and (d) distention. When confronted with these symptoms, which usually rapidly succeed each other, the attendant should refrain, as far as possible, from undertaking treatment until he has made a satisfactory diagnosis. It is most important that no attempt at purgation be made. The attendant must remember this axiom, that if the condition be intestinal obstruction, purgation will do no harm, and if it be not obstruction, enemata will sooner or later induce relief. Morphine, administered to alleviate pain, may mask the symptoms, and thus delay diagnosis. Gastric lavage to relieve vomiting, while inducing general comfort, should be withheld until the case has been well studied. These precautions are important, and their observance should not be neglected. If an enema (preferably equal parts of milk and molasses) fails to bring about positive results (fecal matter and gas), vomiting and distention persisting, unrelieved, with temperature normal or slightly below, the pulse being little affected during the first twenty-four hours, the diagnosis is "making itself."

In children, particularly, straining at stool may be followed by the passage of mucus and blood, but no fecal matter or gas will escape in complete obstruction. In using enemata, care must be exercised to admit no air with the syringe. Of course, the surgeon will explore all the hernial regions, and systematically palpate the abdomen for the sausage-like tumor of intussusception. The abdominal tympanites corresponds to the site of the obstruction, and if that be high in the abdomen, vomiting is earlier and more troublesome, and the distention is less. It not infrequently happens that the colicky pains become greatly lessened,

and often cease altogether as the intestine loses its vitality. The gurgling and borborygmus which mark the first stage of obstruction also cease as peritonitis develops, and the vomiting is superseded by eructations and hiccough. The pulse increases in frequency and feebleness, and after a variable period collapse appears, with clammy skin and Hippocratic countenance, representing a hopeless condition. The situation of the constriction and the degree of distention, together with the age of the patient and the vigor of his constitution, determine the period over which the symptoms may extend. Usually forty-eight to sixty hours represent the limit in internal strangulation, while the condition rapidly becomes less promising after the first twenty-four hours.

The expectant treatment in all forms of intestinal obstruction should be limited to a few well-directed enemata. No effort at purgation is to be entertained for a moment, and everything should be "hands off" until preparations are made for surgical exploration. No words should be wasted on differential diagnosis. The progressive symptoms noted mean death of the patient if not promptly relieved, and they belong to the group demanding exploratory surgery. After twenty-four hours the prospect of relief by the invocation of surgery becomes less and less hopeful.

Ectopic Pregnancy.

Ruptured ectopic pregnancy, like the two preceding emergencies, presents some special features of diagnosis. It is most commonly encountered in women given a history of previous pelvic trouble, after one, or perhaps, two menstrual periods have been missed. Often the first symptom noticed is an irregular metrorrhagia, and pregnancy may or may not have been suspected, but menstrual irregularities are the rule.

Any one of several terminations may accrue as a result of ec topic pregnancy. However, the diagnosis is unmistakable where there exists a history such as that noted, and where the patient has a sudden lancinating pain in the ovarian region, followed by great depression, pallor, feeble pulse and collapse, from which there may be either reaction or syncope and death in a few hours. If reaction follows and the character of the pulse improves, vaginal examination after eight or ten hours will reveal

a mass in the ovarian region painful to touch, pushing the uterus to the opposite side, and re-examination will show increase in size of the mass during the first forty-eight hours. This physical manifestation following the history noted, leaves no doubt as to the diagnosis, and indicates the immediate necessity for operation, as no judgment can foretell when hemorrhage will recur. Operative intervention during the period of collapse should only be undertaken in the best surroundings, and with the understanding that there is little hope either way. Operation after reaction insures an almost certain recovery where infection can be avoided.

Intestinal Perforation.

While the three lesions mentioned usually present sufficient characteristic symptoms to be differentiated, this is not always true, and they must be considered among the possibilities when surgically exploring for conditions producing the group of symptoms to which repeated allusions have been made. In this group experience has led the writer to include, in addition to the vagaries of appendicitis, intestinal obstruction, etc., *perforation of the intestine or stomach, whether from gastric, duodenal or typhoid ulcer, rupture of an internal abscess, extensive suppuration about the bile passages,* and *acute pancreatitis.*

In intestinal perforation the first symptoms are much like those due to rupture of an ectopic gestation, except pain is distributed over the abdomen, and collapse is less severe. More or less complete reaction takes place in a few hours, though pain becomes more severe, the temperature rises, vomiting, constipation, increasing distention, and all the symptoms of acute peritonitis supervene within twenty-four hours. Fatal attacks of this character, in which the patient does not react, are called "fatal acute indigestion." the pathological lesion not being recognized. Sudden pain and shock, followed by reaction from the latter, but steadily increasing abdominal discomfort, almost always accompanied by elevation of temperature, indicate intestinal or gastric perforation, the abdominal symptoms being due to beginning peritonitis. The location of the original pain-point in

a measure is an indication as to site of the perforaton, but is too indefinite to be of much importance.

In acute pancreatitis the symptoms are similar to those of intestinal perforation during the first twenty-four hours, and the condition is likewise difficult to distinguish from intestinal obstruction, the early peritonitis locking the bowels. Location of the tenderness and the profound shock may strongly indicate a lesion of the pancreas, *i. e.,* pain in the left hypochondrium, with tenderness over the region of the pancreas. The diagnosis oftentimes cannot positively be made in the first stage. If, after thirty-six hours, the symptoms subside and induration can be demonstrated in the pancreatic region, the likelihood of a deposit of blood and threatened abscess formation is to be considered. However, these symptoms are so positively in the dangerous group that all haste should be made toward surgical exploration under suitable surroundings.

In suppuration of the bile passages there is usually a history of previous gallstone colic, or catarrh of the bile passages. An attack of pain in the upper right side of the abdomen, accompanied by chill, high temperature, constipation, vomiting and marked tenderness over the characteristic region, indicates a gall-bladder lesion. The temperature is especially diagnostic, and, considered in connection with the previous history, will sometimes make diagnosis easy.

In perforation of chronic ulcer of the stomach or duodenum, there is always a history of previous gastric disturbance, and other symptoms, pain, etc., in relation to the ingestion of food, as well as chronic soreness and tenderness on pressure. These symptoms, preceding the shock described as indicating intestinal perforation, will make the diagnosis almost certain. When the indications of perforation have for a long time been preceded by symptoms vague, but suggestive of hepatic or sub-diaphramatic abscess, the diagnosis is more confidently settled. However, even in the absence of distinctive symptoms, the surgeon being confronted with those belonging to the dangerous group, exploratory celiotomy is to be urgently advised. The differential diagnosis is based upon the presence of symptoms indicating grave lesions,

whether possessing the characteristics of appendicitis, intestinal obstruction, acute pelvic lesions, or the still more pronounced shock and progressive depression incident to intra-peritoneal rupture of ectopic gestation or the intestines.

In the consideration of these general symptoms, the attendant has really only to exclude functional conditions, such as hepatic, nephritic, and intestinal colic. These functional disturbances oftentimes produce severe pain, vomiting and not infrequently constipation. However, there is rarely any shock, temperature remains normal, and the pulse but little accelerated, while the character and location of the pain constitute a safe guide. Ordinarily in the course of a few hours these functional conditions can be excluded, and the attendant will then realize that he has had under observation a patient suffering from a lesion with symptoms belonging to the dangerous group.

In conclusion, the writer urges that two fundamental facts which he has seen demonstrated over and over again be constantly borne in mind, viz.:

1. That the trained and experienced judgment of the surgeon will oftentimes save life in surgical emergencies even where the conditions appear almost hopeless.

2. That skillfully executed exploratory celiotomy, even in the presence of the most threatening conditions, adds little to the danger and oftentimes offers great promise as to preservation of the life of the patient.—*The Louisville Monthly Journal.*

Editorial

PUBLISHER'S NOTICE—The Journal is published in monthly numbers of 48 pages at $1.00 a year, to be always paid in advance.

All bills for advertisements to be paid quarterly, after the first insertion of the quarter.

Business communications, remittances by mail, either by money order, draft, or registered letter, should be addressed to the Business manager, C. S. Briggs, M. D. corner Summer and Union Streets, Nashville, Tenn.

All communications for the Journal, books for review, exchanges, etc., should be addressed to the Editor.

SUBSCRIPTIONS AND PREMIUMS.

That sterling medical journal, the *Texas Medical Journal*, in "Notes and Miscellany," has the following query: "Doctor, in case you sent your bill to a patron repeatedly, for several years' service and he paid no attention to it—ignored it, what would you do? Say a small amount (like a subscription to the "Red Back" for instance), do you think he would be treating you just right?"

Two men at a saloon bar taking a drink. The treater, wishing his co-drinker the best of health, accentuates his good wishes with a courteous bow. The treated, at a loss for something better to say, responds with the words, "I bows likewise," and proceeds to quaff. To the sentiment implied in the above extract we also say, "I bows likewise." The JOURNAL with its last issue mailed statements of accounts for subscription to all in arrears. Despite the fact that an elegant premium has been offered to every one who pays up his subscription, only a few as yet have taken advantage of the offer, and our supply of thermometers thus offered is still plentiful. As a rule, doctors are the most courteous and honorable of men. Is there any good reason why the same rule of life they observe in other transactions of business should not be observed in the relations between publisher and subscriber? Surely there can be no palliation of such flagrant neglect. Surely such demands deserve at least a reply—a notification at least that the JOURNAL should no longer be sent or at least a promise to pay up in a reasonable length of time

and an order to continue the subscription. We are adding daily new names to our mailing list, and shall drop those who do not reply from the same unless some kind of response is made in a short time.

We hope every one who reads this will appreciate our position and lose no time in sending in their subscriptions and renewals. Let us hear from you without delay.

Program of American Proctologic Society, Fourteenth Annual Meeting, Atlantic City, N. J., Commencing Monday, June 3, 1912.

Executive Council meets at 11 a.m.

First regular session at 2 p.m.

Annual address of the President—Subject: "The Relationship and the Duties of the Proctologist to the Profession," John L. Jelks, Memphis, Tenn.

PAPERS.

1. "A Review of Proctologic Literature for 1911," Samuel T. Earle, Baltimore, Md.

2. "Post-Operative Care of Rectal Cases," Wm. M. Beach, Pittsburgh, Pa.

3. "Patulous Anus—Its Clinical Significance," Alfred J. Zobel, San Francisco, Cal.

4. "The Three-Step Operation in Tumors of the Sigmoid and Colon," James P. Tuttle, New York City, N. Y.

5. "A Study of Cases of Constipation by the Use of the Roentgen Ray," Arthur F. Holding, New York City, N. Y.

6. "Valvotomy," George B. Evans," Dayton, Ohio.

7. "Multiple Adenomata of the Rectum. A Report of a Case with Symptomatic Relief by Simple Remedies," E. H. Terrell, Richmond, Va.

8. 'Pigmentation of the Rectum and Sigmoid," Jerome M. Lynch, New York City, N. Y.

9. "Observations Upon the Relationship of Tuberculosis to Peri-Rectal Suppurations," Collier F. Martin, Philadelphia, Pa.

10. "Ano-Rectal Disease Due to Venereal Infection," J. A. McVeigh, Detroit, Mich.

11. "Further Observations on Pruritis Ani: Its Probable Etiologic Factor," Dwight H. Murray, Syracuse, N. Y.

12. "Colonic Dilation (Congenital and Acquired) as a Factor in Chronic Intestinal Obstruction (Obstipation)," Samuel G. Gant, New York City.

13. "Acute Post-Operative Intestinal Paresis," J. A. McMillan, Detroit, Mich.

14. "Prevention and Treatment of Post-Operative Retention of Urine," Frank C. Yeomans, New York City, N. Y.

15. "Intra-Rectal Rupture of Suppurating Sinus from Hip-Joint Disease," Ralph W. Jackson, Fall River, Mass.

16. "(a) Keloidal Tuberculoma; (b) Fibromatous Keloid," Alois B. Graham, Indianapolis, Ind.

17. "Differential Diagnosis of Ulcers of the Rectum," Leon Straus, St. Louis, Mo.

18. "The Surgery of Colonic Obstipation," Louis J. Hirschman, Detroit, Mich.

19. "Rectal Carcinoma," J. Rawson Pennington," Chicago, Ill.

20. "Reflex Disturbances Referable to the Rectum," T. Chittenden Hill, Boston, Mass.

21. "Some Practical Points Gleaned from the Observations of a Proctologist," Samuel T. Earle, Baltimore, Md.

22. "Some Practical Considerations of the Etiology of Diarrhea and Its Treatment," J. Coles Brick," Philadelphia, Pa.

23. "Venereal Affections of the Anus and Rectum," Edward A. Hamilton, Columbus, Ohio.

DENTAL INTERNE (MALE), GOVERNMENT HOSPITAL FOR THE INSANE, JUNE 5, 1912.

The United States Civil Service Commission announces an examination on June 5, 1912, at the places mentioned in the list printed hereon, to serue eligibles from whihc to make certification to fill a vacancy in the position of dental interne(male), at $600 per annum, with maintenance, in the Government Hospital for the Insane, Washington, D. C., and vacancies requiring sim-

ilar qualifications as they may occur, unless it shall be decided in the interest of the service to fill such vacancy by reinstatement, transfer or promotion.

The Department states that it reserves the right to terminate the appointment at the expiraion of one year of service if it is deemed advisable to do so.

The examination will consist of the subjects mentioned below, weighted as indicated:

Subjects	*Weights*
1. Letter writing (the subject matter on a topic relative to the practice of dentistry)	5
2. Anatomy and physiology (general questions on these branches, also with special reference to the teeth, mouth, and head)	10
3. Chemistry, materia medica, and therapeutics (the preparation, properties, and reactions of chemicals; crude drugs and their action and application, with those of other therapeutic agencies)	15
4. Dental pathology and oral surgery (the morbid processes incident to diseases and injuries of the teeth, mouth, and contingent structures, and their surgical treatment)	20
5. Operative and prosthetic dentistry (the detailed technics of general and special operative and laboratory work)	25
6. Bacteriology, histology, and hygiene (the cultivation, isolation, demonstration of bacteria, the principles of sterilization, mounting specimens, use of microscope, the principles of general and oral hygiene, etc.)	10
7. Orthodontia (local and constitutional irregularities in growth and development of the teeth, and their correction)	15
Total	100

Applications will not be accepted from persons who fail to indicate, in answer to Question 18 of the application form, that they are graduates of not more than 18 months' standing of regularly incorporated dental colleges.

Applicants must be unmarried.

Age limit, 20 years or over on the date of the examination.

This examination is open to all citizens of the United States who comply with the requirementse.

This announcement contains all information which is communicated to applicants regarding the scope of the examination, the vacancy or vacancies to be filled, and the qualifications required.

Applicants should at once apply either to the United States Civil Service Commission, Washington, D. C., or to the secretary of the board of examiners at any place mentioned in the list printed hereon, for application and examination Form 1312. No application will be accepted unless properly executed and filed with the Commission at Washington. In applying for this examination the exact title as given at the head of this announcement should be used in the application.

As examination papers are shipped direct from the Commission to the places of examination, it is necessary that applications be received in ample time to arrange for the examination desired at the place indicated by the applicant. The Commission will therefore arrange to examine any applicant whose application is received in time to permit the shipment of the necssary paprs.

Issud May 2, 1912.

Greater New York Number.

In June the American Journal of Surgery will issue a number composed of original contributions from men of recognized prominence in the medical profession residing in greater New York. Among those to contribute are: Herman J. Boldt, C. N. Dowd, Meddaugh, Dunning, Wm. S. Gottheil, E. L. Keys, Jr., Howard Lilienthal, Chas. H. May, Willy Meyer, Robt. T. Morris, S. Lewis Pilcher, John O. Polak, James P. Tuttle, James P. Warbasse and others. Contributions from these well known men should make this issue of particular interest and value.

Obituary—Dr. James B. Murfree.

After a lingering illness of several months, Dr. James B. Murfree died at his home in Murfreesboro, Tenn., at 10 o'clock, April 24, at the age of 77 years. While his death had not been unexpected, still the blow came with powerful force to the community in which he had long practiced and by every member of whom he was well known. No man ever worked harder or more earnestly in the discharge of his duties, and doubtless his long and strenuous life contributed not a little to his decease. Death thus has removed from the profession in Tennessee one of its most conspicuous figures. Dr. Murfree towered in talents, as in figure, head and shoulders above his fellows, and invariably challenged the attention of all with whom he was brought in contact. His devotion to his work was almost phenomenal. He was never known to refuse a call, and was as assiduous to the poor as to the rich. His life was a continuous one of self-denial and sacrifice. He lived for the good he could do—not for the good he could get. His character was unblemished, his honor and integrity beyond cavil, his religion sincere. In his dealings with his feliows in medicine he was courteous, dignified and always ethical. In the medical gatherings, which he was fond of attending, he was a prominent figure, and his papers and discussions were always received with the attention and appreciation they always deserved. The death of Dr. Murfree is a distinct loss to the profession of the State. He was an example of all that is admirable and lovable in the medical man. The high positions he occupied in the profession to which he devoted his life were owing to his earnestness, his faith and his unflagging industry. He was beloved by all who knew him, by none more than by his *confreres* with whom he was brought in contact. The writer of this imperfect sketch can never forget the kind friendship of this great and good man, and feels that nothing he can say could add anything to the reputation this great man has left behind. Dr. Murfree was a great man, whose memory the profession will always be glad to honor. We append a short sketch of his life from the daily press.

"Dr. Murfree was the oldest and most prominent physician and

surgeon in Murfreesboro and Rutherford County. When it was intended by the general public to emphasize the perfect popularity of a person, it was a common expression to say, 'He was as popular as Dr. Murfree.' That was considered the acme of personal and professional praise.

"Dr. Murfree was a native of Rutherford County, born September 16, 1835, a son of M. B. and Mary A (Roberts) Murfree, both of whom were of North Carolina nativity. He was a grandson of that Revolutionary hero and patriot, Col. Hardy Murfree, in whose honor the city of Murfreesboro was named. Dr. Murfree received his education at Union University, one of the oldest institutions of the South, and received the degree of A.M. In the summer of 1856 he began the study of medicine, and in October, 1856, he entered the Medical Department of the University of Nashville. In 1857 he took two courses of lectures in Jefferson College, Philadelphia. He graduated from that institution in March, 1859, with the degree of M.D. He then returned to Murfreesboro and practiced his profession till the breaking out of the Civil War, when he enlisted in the First Tennessee, Company I, and served as a private till June, when he was appointed surgeon and was later commissioned as assistant surgeon of the Confederate army. After the surrender he returned to Murfreesboro and resumed the practice of his profession, which he continued with remarkable success up to the time of his last illness.

'Dr. Murfree was always, or since the Civil War, a 'straight Democrat;' he served the municipality of Murfreesboro for two terms as Mayor. He had been a leading member of the Presbyterian Church and a deacon in the church for many years. In the early 60's he was married to Miss Ada J. Talley, a native of this county, and a daughter of Maj. P. C. Talley, of Readyville. To this union was born nine children, six of whom, with his wife, survive. Although Dr. Murfree had been in delicate health for about two years, so great was the confidence reposed in him by his patients and the public as a physician, he was not allowed to give up active practice till his physical condition precluded the possibility of his leaving his home, and even up to the end trust-

ing patients insisted on him prescribing for them in their illness.

"Dr. Murfree would have been 77 years of age next September. His remains will be laid to rest in the family plot in Evergreen Cemetery."

ACTION OF THE MIDDLE TENNESSEE MEDICAL SOCIETY.

Resolutions of respect on the death of Dr. J. B. Murfree:

Inasmuch as God in his infinite love and mercy has seen fit to remove by death our venerable and highly esteemed membr, Dr. J. B. Murfree, we feel that we have lost a valuable member and brother; his courteous and pleasant disposition always brought interest and sunshine into the meetings of the Middle Tennessee Medical Association; therefore be it

Resolved, That we bow in humble submission to this dispensation of divine law; that we sympathize with his family in their irreparable loss, and commend them to the care of him who doeth all things well; and be it further

Resolved, That these resolutions be made a part of the proceedings of this society and spread on the minutes of this meeting; that the Secretary be instructed to send a copy to his family and also to his local medical society.

W. K. Sheddan,
S. T. Hardison,
B. F. Fyke,
Committee.

Pulaski, Tenn., May 16, 1912.

Reviews and Book Notices

Thornton's Medical Pocket Formulary. New (10th edition. Containing over 2,000 prescriptions, with indications for their use. In one leather-bound volume. Price, $1.50, net. Lea & Febiger, Publishers, Philadelphia and New York, 1912.

The fact that this pocket reference book has gone through ten editions is ample evidence of its popularity. The author has in this book presented the collective experiences of the medical profession as to the most efficient means of combatting disease. For each disease, arranged in alphabetical order, are given selected formulæ, with quantities, both in the ordinary and in the metric systems. The most experienced physician will find it useful as a reminder, and the younger practitioner will perform his duty better to his patient and to himself by reference to these selected formulae. The indications and annotations employed will be found useful.

Municipal Ordinances, Rules and Regulations Pertaining to Public Hygiene. Adopted from January 1, 1910, to June 30, 1911, by cities of the United States having a population of over 25,000 in 1910.

This is a valuable publication for health authorities of the country and for all interested in the subject. It is a systematic compilation of changes and advances in the sanitation of cities of the United States as shown by the adoption of new ordinances and the amendments and alterations of old laws of hygiene and sanitary perfection as in force by Health Boards for the safeguarding of public health. The reports incorporated herein are from cities of the United States having a population of over 25,000, and extend as far back as January 1, 1910. As a comprehensive report of all recent advances in sanitary medicine this publication will prove of great interest and value to health officers and health boards.

The Surgical Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago. Vol. 1, No. 2. Octavo of 291 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1912. Published bi-monthly. Price,

per year, paper, $8.00; cloth, $12.00. W. B. Saunders Company, Philadelphia and London.

The second volume of this bi-monthly publication has just been received and reviewed. As might be expected, there are fewer errors than in the first number. This volume is replete with clinics dealing with bone and joint surgery, and since Murphy is working along original lines in this branch of surgery, all these articles are rich in originality. In all there are nineteen clinical reports, which take up, besides the bone and joint surgery, tumors, syphilis, nerve anastomoses, plastic operations, intestinal surgery and tendon operations. We take great pleasure in recommending this bi-monthly publication to our subscribers, whether they do surgery or not. There is much valuable reading matter for the internist as well as for the surgeon.

The Treatment of Shortsight. By Prof. Dr. J. Hirschberg, Geh. Med. Rat. in Berlin. Translated by G. Lindsay Johnson, M. D., F. R. C. S., with Twelve Illustrations. New York. Rebman Company, 112-3 Broadway.

This monograph is a lecture on the treatment of shortsight, published recently in his German clinic. It is a very valuable guide on the subject, and will prove of the greatest advantage to specialists and practitioners. The author's extended experience in the practice of ophthalmology renders this treatise of especial value to every one interested in this common affection, particularly to specialists who have to deal with this class of affections.

Publisher's Department

"Both in my practice in New York City and particularly during the summer, when I am located at Richfield Springs, N. Y., a resort where thousands of rheumatic and gouty patients take the sulphur baths, I have prescribed Tongaline extensively, and it has always proved most satisfactory."

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Contents for May, 1912

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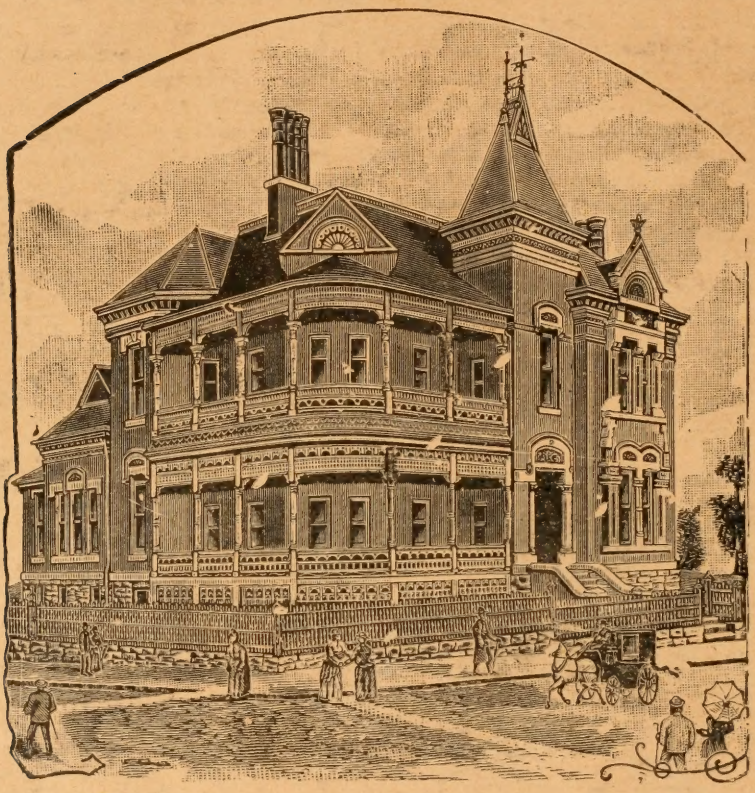

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